MC3000 Embedded Barcode QR Code Scanner Specification

Version Number:V2.75_ En

Catalogue

1. Appearance Dimensions.....3

2. Technical Parameters.....4

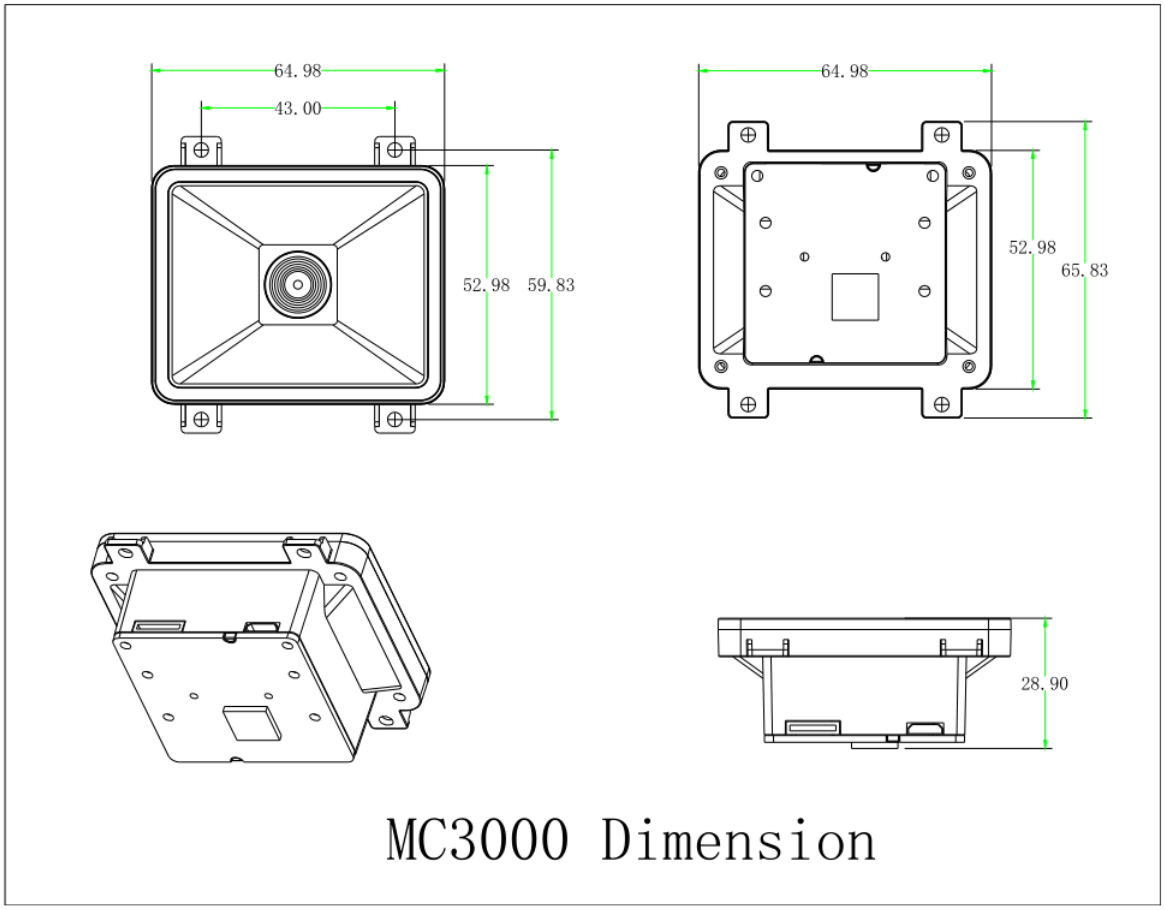
3. Interface Pin Definition 5

4. Trigger Scanning Function 7

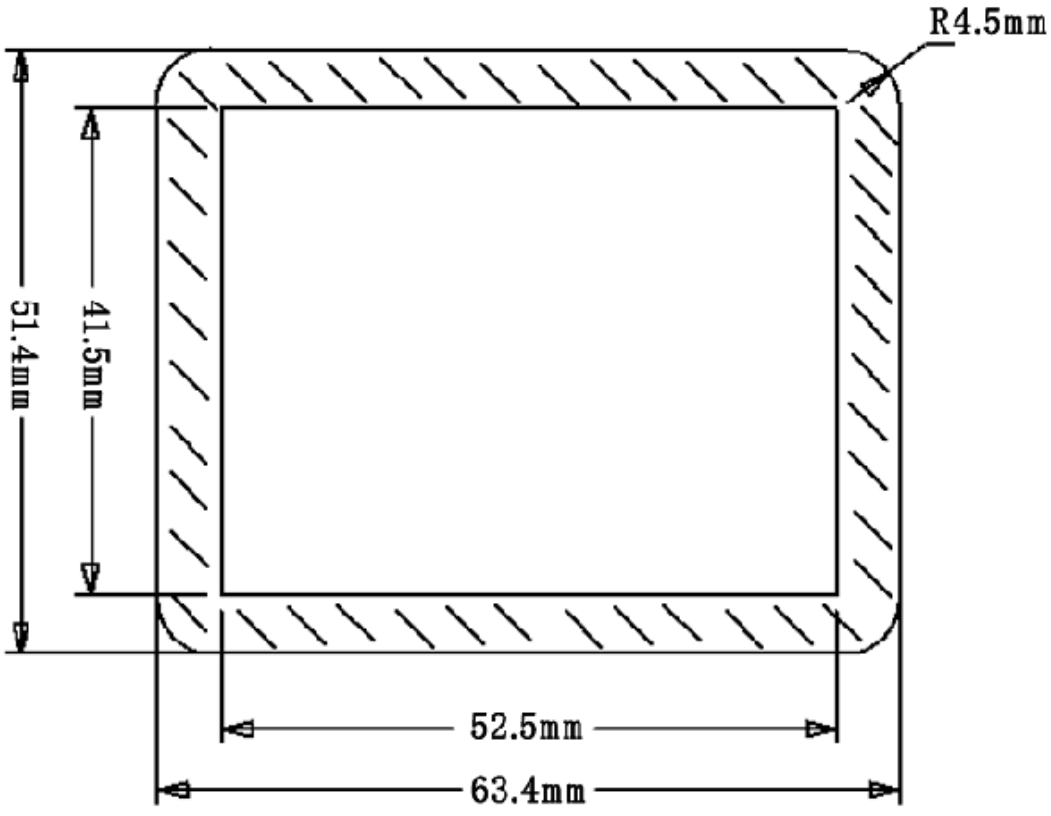
5. Scan Code Indication Function.....7

6. Buzzer Indication Function 8

1. Appearance Dimensions



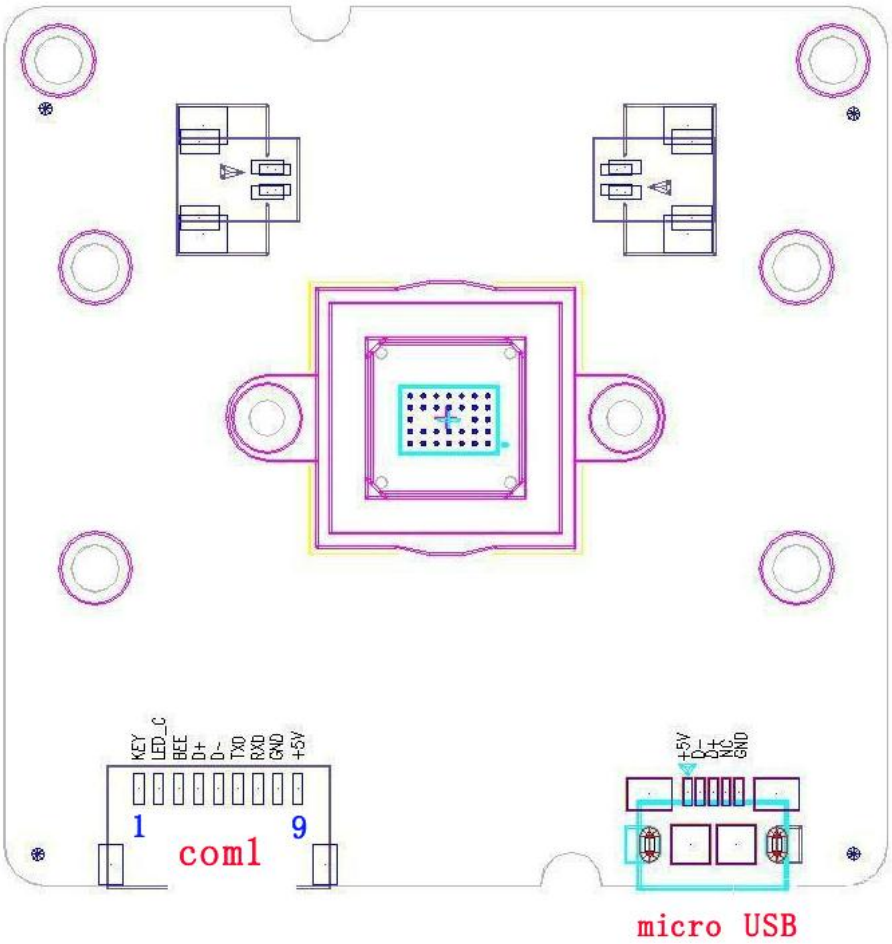
Size diagram of acrylic panel window:

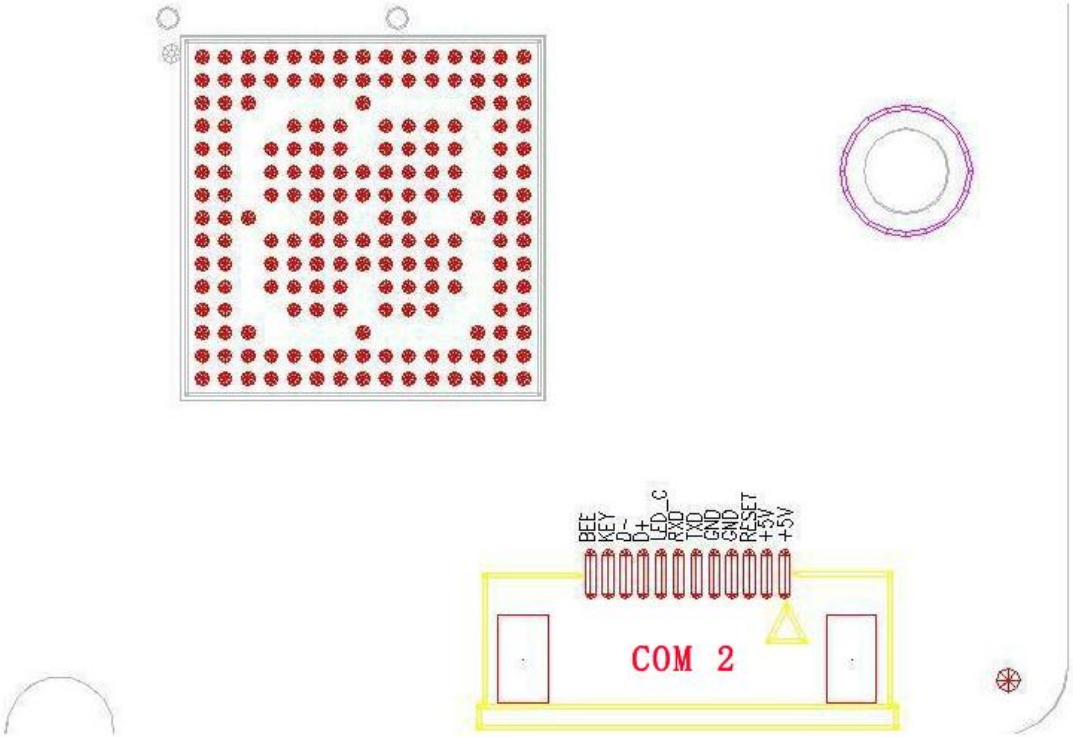


2. Technical Parameters

Model	MC3000
System Interface	TTL、 USB、USB Virtal COM、HID POS、 RS232(Optional)
Trigger Mode	Auto Sensing、Continuous Reading、Command Reading
Parameter Setting	Sweep QR code setting parameters or host command settings
Prompting Mode	Buzzer, LED indicator
Input Voltage	DC 5V±5%
Power Current	MAX 350mA、Normal ≤80mA
Resolution Ratio	640x480
Scanning angle	Inclination angle ±55 °,Rotate 360 °
Decode type	Barcode: UPCA、UPCE0、Code11、Codabar、EAN8、UPCE1、EAN13、CODE39、CODE93、CODE128、ISBN13、Matrix2of5、Industrial25、Cross 25 Yards; 2D：QR Code
Minimum Resolution	≥5mil，1mil = 0.0254mm
Scan Distance	QR：3 cm~ 16cm
Operating Temperature	-25~55 ℃
Humidity	5%~95%（Without Condensation）

3. Interface Pin Definition





COM 1:

Terminal Specifications: 1.0mm-9Pin horizontal patch

Pin	Signal	IO	Function Description
1	KEY	Input	Key, low level indicates pressing to start scanning code, high level indicates no operation;
2	LED_C	Output	Scanning indicator light signal, Successful reading LED indicator control low level, low level on, high level off;
3	BEE	Output	The buzzer prompts the control signal, high level (3.3V) sounds, low level does not ring;
4	USB D+	-	Usb hid/Usb virtual uart
5	USB D-	-	Usb hid/Usb virtual uart
6	TXD	Output	Uart_TTL TX 3.3V level; RS232 TX
7	RXD	Input	Uart_TTL RX 3.3V level; RS232 RX
8	GND	-	Power Ground
9	+5V	-	5V Power Input

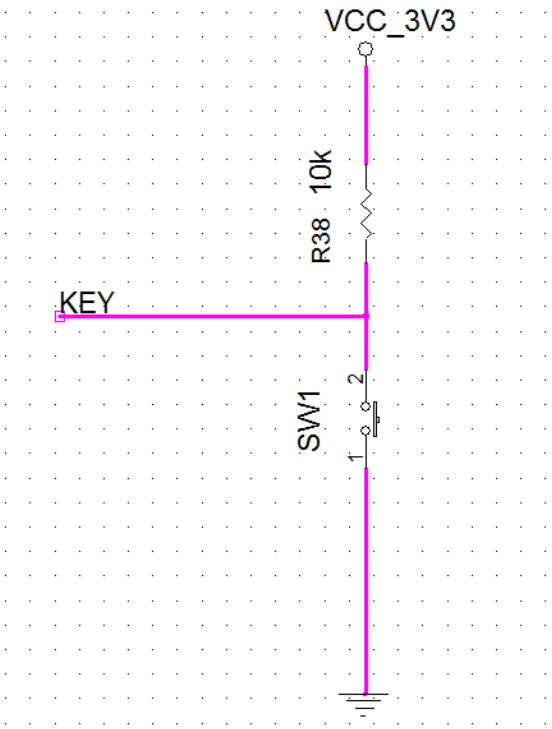
COM 2:

Terminal specification: 0.5mm-12Pin

Pin	Function Description
1	+5V
2	+5V
3	RESET,Effective at low levels; If not in use, please keep NC
4	Gnd
5	Gnd
6	Uart TXD
7	Uart RXD
8	Successful reading LED indicator control low level high level (3.3V) off; need to add drive amplifier circuit
9	USB D+， USB Virtual HID/USB Virtual Uart
10	USB D-， USB Virtual HID/USB Virtual Uart
11	Key, low level means pressed, high level (3.3V) means release
12	Read the successful buzzer prompt control, high level (3.3V) sounds, low level does not ring; need to add drive amplifier circuit

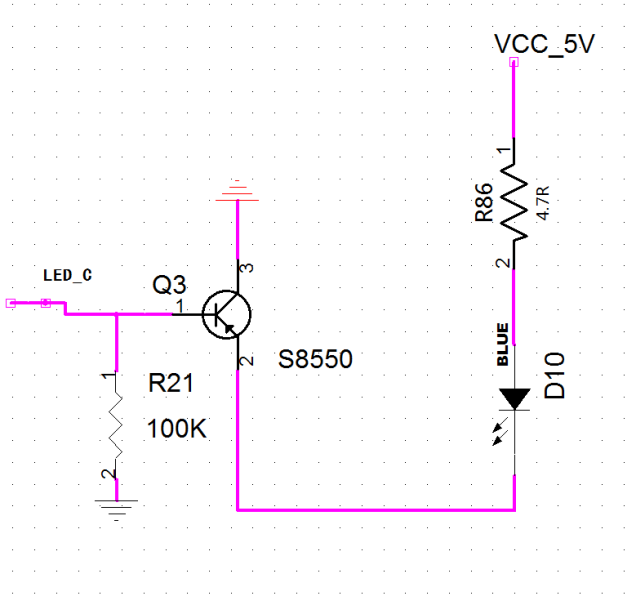
4. Trigger Scanning Function

The KEY pin (PIN 11) triggers a scan code on low-level input. The following trigger circuit design can be referred to:



5. Scan Code Indication Function

When the LED C pin (PIN8) of the motherboard interface successfully scans the code, the LED C pin will output a low-level control signal and eventually return to a high level. The LED C signal output pin needs to use a circuit driven LED. The following LED driver circuit design can be referred to:



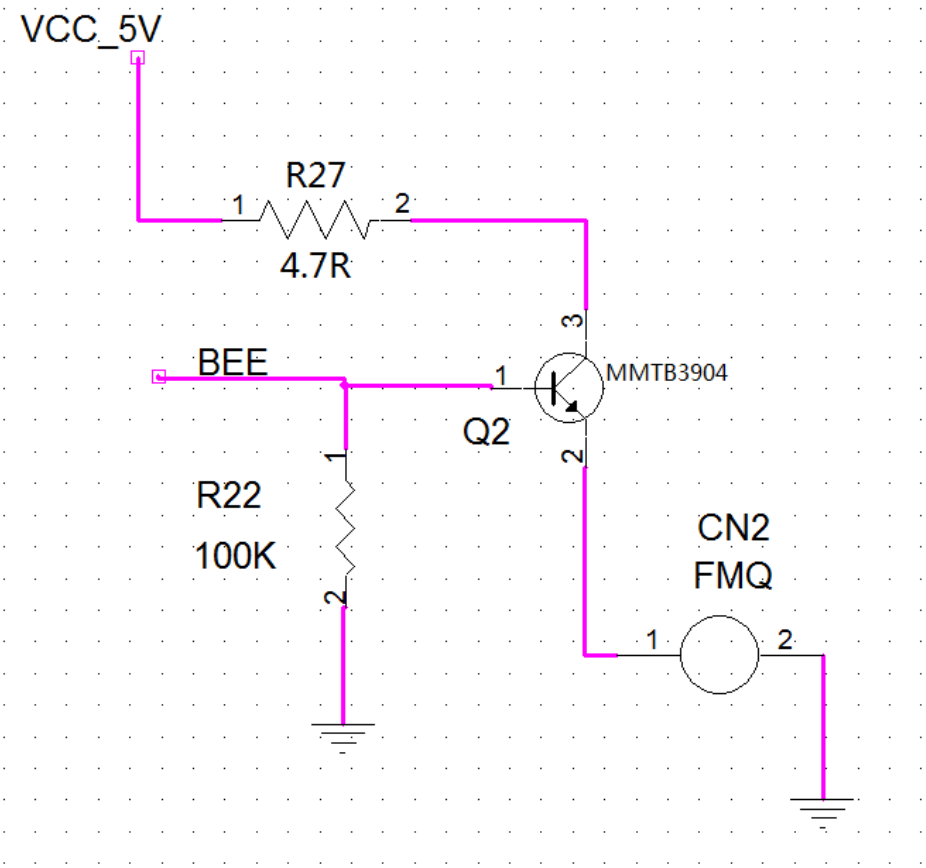
Circuit principle explanation: When scanning, LED0C outputs a low level, Q3 conducts, and the LED

lights up. After successful scanning, the LED0C signal becomes a high level, Q3 cuts off, and the LED lights go off.

6. Buzzer Indication Function

The BEE pin (PIN 12) of the motherboard interface has two signal output modes: PWM and level; When in PWM output mode, a passive buzzer needs to be used and the same operating frequency as the passive buzzer needs to be selected. When in level output mode, an active buzzer needs to be used. The load capacity of the BEE pin is limited, and it is not possible to directly drive the buzzer to sound, in order to avoid damaging the chip on the motherboard.

The reference buzzer driver circuit is shown in the following figure:



Circuit principle explanation: Level output mode, when BEE has a high output level, Q2 conducts and the buzzer sounds; BEE output low battery level, Q2 cut-off, buzzer does not sound.

Contact us:

Sweep,join us,WhatsAPP communication is more convenient

Contact:Hu Engineer

Work Email:3122285228@qq.com